The Warded Lock

The warded lock's basic design was created by the ancient Romans. The basic principle behind its operation is a series of "wards" (projecting obstructions) that prevent all but the proper cut key from being rotated inside the lock. These obstructions have been placed in the path of the turning of the bit portion of the key. This type of lock utilizes a key that has been notched in a way that it clears all the wards, but is still able to turn the bolt. These locks are easy to recognize. They are the "classic" antique lock that you may still find in old houses.

```
         ________                    blade (stem)        #####  handle (bow)
        /        \                                     ########
       |          |      #################################    ##
        \        /       #################################    ##
          |     |        ####   ###                    ########
         /      \        ####   ###                      #####
        /        \       ####
       /          \           bit       a warded key for a two-ward lock
      /____________\

 warded key lock entrance
```

The number of wards in the lock can vary, but normally two is the minimum. When a user inserts a key into the warded lock, the metal obstructions inside the lock allow only the proper key to be inserted. The key bittings allow the key to turn in a circular motion, opening the lock through one of four different mechanisms:

1. The key lifts a detent lever while throwing the bolt, providing deadbolt action. (Deadbolt action means that the bolt is secure against end pressure.)

2. The key moves a bolt whose locked or unlocked position is maintained by the action of a humped flat spring in two notches on the bolt.

3. The key moves directly against the latch tail of a latchbolt, or does so through the action of a floating lever.

4. The key inserts between two springs and wedges them apart as it is turned. (Usually only in warded padlocks)

Picking

These locks offer only token security to the user. Besides being easy to circumvent, the warded locks offers only about fifty alternate keying combinations. Picking them is generally regarded as trivial. All that is required is to bypass the wards and move the bolt into the unlocked position. This can be accomplished by using a pick known as a "buttonhook". To make your own buttonhook pick, use a pair of pliers to bend a six inch section of coat hanger into a warded key shape as below:

```
                                          ########
```

```
                              ###    ##
#################################    ##
#                             ##     ##
###                            ##    #
                                #####
```

The wire should be thin enough to pass into the keyway while avoiding all the wards, but stiff enough that it can still manipulate the bolt to open the lock. Though you may have to make a "large" and a "small" warded lock pick, the same principle applies.